

REMARKS

None of the claims have been amended herein. Claims 1-18 are pending and under consideration. Reconsideration is respectfully requested.

The Applicants respectfully request an Examiner interview. A Request is filed concurrently herewith.

I. REJECTION OF CLAIMS 1-18 UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER “OPENMP FORTRAN APPLICATION PROGRAM INTERVACE,” VERSION 1.1 NOVEMBER 1999 (HEREINAFTER “OpenMP”)(PREVIOUSLY CITED) IN VIEW OF IWASAWA ET AL. (U.S. PATENT 5,151,991; HEREINAFTER “IWASAWA”)(PREVIOUSLY CITED) AND FURTHER IN VIEW OF CALLAHAN, II ET AL. (U.S. PATENT NO. 6,665,688; HEREINAFTER “CALLAHAN”)(NEWLY CITED):

The present invention, as recited in claim 1, for example, recites a compiler embodied on a medium for compiling a source program. The compiler comprising detecting a parallelization directive described by a user in said source program and if said parallelization directive is detected, generating a front-end intermediate language for said parallelization directive by positioning on a storage region, each processing code of at least part of the parallelization directive with a hierarchical structure in accordance with an internal structure of said parallelization directive.

At page 5 of the Action, the Examiner admits that OpenMP fails to disclose “if said parallelization directive is detected, generating a front-end intermediate language,” as recited in claim 1. However, the Examiner asserts that Iwasawa “intermediate language” at FIGS. 1 and 3. Further, the Examiner asserts that Iwasawa teaches the use of directives at column 1, lines 22-23.

The Applicants respectfully submit that column 1, lines 22-23 of Iwasawa discusses the use of directives when describing problems in the prior art. At column 2, lines 19-29, as pointed out by the Examiner, Iwasawa discloses the use of Fortran language to detect parallel execution of each iteration of the loop. Therefore, the Applicants respectfully submit that Iwasawa avoids using directives to overcome the problems associated with the prior art as disclosed at column 1, lines 35-48.

Iwasawa discloses the use of normal programs, and does not disclose any “parallelization directive” as recited in claim 1. Specifically, FIG. 2 of Iwasawa discloses a source program being processed. However, the source program does not include

“parallelization directive” to explicitly specify statements to be processed in parallel, as disclosed in the present invention at page 4, lines 3-9, for example. Instead, in Iwasawa, parallelizability is determined automatically and the user does not determine the parallelizability (see column 2, lines 39-51).

Further, at page 5, the Examiner indicates that FIG. 5 of Iwasawa discloses “positioning on a storage region, each processing code of at least part of the parallelization directive with a hierarchical structure,” as recited in claim 1. Instead, FIG. 5 merely discloses a hierarchical structure (i.e., a loop table) for analyzing a loop included in a program which does not include a directive.

In addition, the Examiner asserts that FIG. 13 of Iwasawa discloses “an internal structure of said parallelization directive,” as recited in claim 1. Instead, Iwasawa merely discloses hardware structure and processed loops in each processor. Again, Iwasawa does not teach or suggest “a parallelization directive” as recited in claim 1. Thus, Iwasawa teaches away from the present invention.

Further, although the Examiner asserts that Iwasawa discloses converting a source program into an intermediate language at FIG. 3 and column 5, lines 59-60, the Examiner admits that the combination of OpenMP and Iwasawa fail to disclose “generating a front-end immediate language for said parallelization directive,” as recited in claim 1. However, the Examiner asserts that Callahan discloses this feature.

Callahan is not related to parallel processing and therefore, fails to disclose “generating a front-end intermediate language for said parallelization directive,” as recited in claim 1.

Instead, Callahan discloses a replay method and system for monitoring the generating of data from input data sets, and when the data set is subsequently accessed, automatically regenerating the data set if the data set is out-of-date (see column 2, lines 53-57).

Therefore, there is no motivation to combine Callahan with OpenMP and Iwasawa. Thus, the combination of OpenMP, Iwasawa and Callahan fails to establish a prima facie case of obviousness over the present invention. Therefore, it is respectfully submitted that the rejection is overcome.

II. CONCLUSION:

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore, defines allowable subject

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matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date:

July 11, 2005

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